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09/919,555	07/31/2001	Herbert F. Cattell	10010326-2	4382

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EXAMINER

FORMAN, BETTY J

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

9M

## Office Action Summary

### Application No.

09/919,555

### Applicant(s)

CATTELL ET AL.

### Examiner

BJ Forman

### Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-16 and 45-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 2 4-16 45-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**FINAL ACTION**

***Status of the Claims***

1. This action is in response to papers filed 13 May 2004 in which claims 1-2 and 10 and claims 47-54 were added. All of the amendments have been thoroughly reviewed and entered. The previous rejections in the Office Action dated 18 February 2004 are maintained and reiterated below. All of the arguments have been thoroughly reviewed and are discussed below. New grounds for rejection, necessitated by the additional claims are discussed.

Claims 1-2, 4-16 and 45-54 are under prosecution.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4-16, 45-54 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/775,387 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C.

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122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

Regarding Claim 1 and 47, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample saving in a memory array related data comprising machine readable (e.g. bar code, ¶ 40) instructions for reading the array and/or instruction of processing the array; and shipping the fabricated array and forwarding the array related data to a location remote from where the array is fabricated (¶ 6) wherein the instructions for reading or processing the array includes information regarding feature errors which are detected, communicated to the fabrication station and added to the memory before subsequent users expose the arrays to a sample (¶ 45 and Fig. 6) wherein during array fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (¶ 5, 11, 15, 41, 45).

Regarding Claim 2 and 48, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample saving in a memory array related data comprising machine readable (e.g. bar code, ¶ 40) instructions for reading the array or instruction of processing the array; wherein array

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related data is saved in association with an identifier (i.e. bar code, ¶ 40); applying the identifier to the substrate or housing carrying the substrate; and shipping the fabricated array and forwarding the array related data to a remote location (¶ 39-41) wherein the instructions for reading or processing the array includes information regarding feature errors which are detected, communicated to the fabrication station and added to the memory before subsequent users expose the arrays to a sample (¶ 45 and Fig. 6) and wherein during fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (¶ 5, 11, 15, 41, 45).

Regarding Claim 4 and 49, Cattell discloses the method wherein the chemical moieties are biopolymers (¶ 24).

Regarding Claim 5 and 50, Cattell discloses the method wherein the biopolymers are DNA (¶ 24).

Regarding Claim 6 and 51, Cattell discloses the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (¶ 36- 40).

Regarding Claim 7 and 52, Cattell discloses the method wherein the memory comprises a portable storage medium, the method further comprising shipping the portable medium to a remote location e.g. bar codes illustrated in Fig. 1, # 356 and 358 (¶ 40 and Fig. 6).

Regarding Claim 8 and 53, Cattell discloses the method wherein the portable storage medium is shipped to the same remote location as the array (¶ 40 and Fig. 6).

Regarding Claim 9 and 54, Cattell discloses the method further comprising applying a communication address to the substrate or housing wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (¶ 40).

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Regarding Claim 10, Cattell discloses a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample saving in a memory array related data said data comprising machine readable (e.g. bar code, ¶ 40) instructions for reading the array or instruction of processing the array; wherein array related data is saved in association with a map identifier; applying the identifier to the corresponding substrate or housing carrying the corresponding substrate; and shipping the fabricated array and forwarding the array related data to a remote location (¶ 27 and 40) and wherein during fabrication information required for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (¶ 5, 11, 15, 41, 45).

Regarding Claim 11, Cattell discloses the method wherein the chemical moieties are biopolymers (¶ 24).

Regarding Claim 12, Cattell discloses the method wherein the biopolymers are DNA (¶ 24).

Regarding Claim 13, Cattell discloses the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location (¶ 36-40).

Regarding Claim 14, Cattell discloses the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium the method additionally comprising shipping the portable storage mediums to multiple remote locations (¶ 40 and Fig. 6).

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Regarding Claim 15, Cattell discloses the method wherein each of the portable storage mediums are shipped with the corresponding fabricated array to the same remote location from which the set of biopolymers used in fabricating the array was received (§ 40 and Fig. 6).

Regarding Claim 16, Cattell discloses the method further comprising applying a same communication address to each of the substrates or housings wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (§ 40).

Regarding Claim 45-46, Cattell discloses the method wherein the array related data includes an indication as to whether a particular type of control probe is present i.e. the data includes “any biological information on an array feature” (§ 39 e.g. complement). Because a control probe is biological and because the data of Cattell includes any biological information, the data of Cattell includes an indication as to whether a particular type of control probe is present.

#### **Response to Arguments**

4. Claims 1 and 2 have been amended to define the array related data as being instructions for selecting one or more algorithms. And new claims 47 & 48 define the array related data as being instructions for selecting instructions for controlling a scanner. Applicant argues that because the '387 application does not teach the recited instructions and/or algorithms, the application does not anticipate the instant method. The newly defined data is acknowledged. However, the amendments do not further limit the method of generating an array. While the method requires saving data in memory, the data saved is deemed non-functional descriptive material because the data does not impart functionality to the claimed method of making an array. While a method step of storing data is limiting within the method, the data stored is a mere compilation of facts. The '387 application teaches saving in a memory machine-readable information and instructions. Hence, the '387 application teaches the method as claimed.

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Where certain types of descriptive material, such as music, literature, art, photographs and mere arrangements or compilations of facts or data, are merely stored so as to be read or outputted by a computer without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer, then such descriptive material alone does not impart functionality either to the data as so structured, or to the computer. Such "descriptive material" is not a process, machine, manufacture or composition of matter. (Data consists of facts, which become information when they are seen in context and convey meaning to people. Computers process data without any understanding of what that data represents. Computer Dictionary 210 (Microsoft Press, 2d ed. 1994).) (see MPEP § 2106 IV (B) 1).

Applicant presents arguments regarding the intended use for the stored instructions/algorithms on pages 8-9 of the response. The arguments have been considered but are not found persuasive because the arguments are not commensurate in scope with the claimed method of making an array.

5. Claims 1, 2, 4-16 and 47-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Cattell, H. (U.S. Patent No. 6,180,351, filed 22 July 1999).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding Claim 1 and 47, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different



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regions of the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1); before the array has been exposed to a sample saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 5, lines 41-48); and shipping the fabricated array and forwarding the array related data to a remote location (Column 3, line 55-Column 4, line 9 and 33-43 and Claims 10-11) and wherein

the array comprises machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Regarding Claim 2 and 48, Cattell discloses a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1); before the array has been exposed to a sample saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 5, lines 41-48; wherein array related data is saved in association with an identifier (Column 4, lines 33-43); associating the identifier with the array (Column 4, lines 34-37 and Claim 12); and shipping the fabricated array and forwarding the array related data to a remote location (Column 3, line 55-Column 4, line 9 and Claims 10-11) and applying the identifier to the substrate or housing carrying the substrate (Column 3, line 64-Column 4, lines 2) and wherein

the array comprises machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Regarding Claim 4 and 49, Cattell discloses the method wherein the chemical moieties are biopolymers (Column 2, lines 60-64 and Claim 3).

Regarding Claim 5 and 50, Cattell discloses the method wherein the biopolymers are DNA (Column 2, lines 60-64 and Claim 4).

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Regarding Claim 6 and 51, Cattell discloses the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (Column 3, lines 28-43 and Column 12, lines 39-43).

Regarding Claim 7 and 52, Cattell discloses the method wherein the memory comprises a portable storage medium, the method further comprising shipping the portable medium to a remote location e.g. bar codes illustrated in Fig. 4, # 356 and 358 (Column 9, lines 65-Column 10, line 4).

Regarding Claim 8 and 53, Cattell discloses the method wherein the portable storage medium is shipped to the same remote location as the array (Column 9, lines 65-Column 10, line 4).

Regarding Claim 9 and 54, Cattell discloses the method further comprising applying a communication address to the substrate or housing wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (Column 10, line 65-Column 50).

Regarding Claim 10, Cattell discloses a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array (Column 2, line 60-Column 3, line 5 and Claim 1); before the array is exposed to a sample saving in a memory array related data said data comprising, instructions for reading the array or instruction of processing the array (Column 5, lines 41-48); wherein array related data is saved in association with a map identifier (Column 4, lines 33-43); applying the identifier to the corresponding substrate or housing carrying the corresponding substrate (Column 4, lines 34-37 and Claim 12); and shipping the fabricated array and forwarding the array related data to a remote location (Column 3, line 55-Column 4, line 9 and Claims 10-11 and Claim 14) and wherein

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the array comprises machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Regarding Claim 11, Cattell discloses the method wherein the chemical moieties are biopolymers (Column 2, lines 60-64 and Claim 3).

Regarding Claim 12, Cattell discloses the method wherein the biopolymers are DNA (Column 2, lines 60-64 and Claim 4).

Regarding Claim 13, Cattell discloses the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location (Column 3, lines 28-43 and Column 12, lines 39-43).

Regarding Claim 14, Cattell discloses the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium the method additionally comprising shipping the portable storage mediums to multiple remote locations (Column 9, lines 65-Column 10, line 52 and Claim 14)

Regarding Claim 15, Cattell discloses the method wherein each of the portable storage mediums are shipped with the corresponding fabricated array to the same remote location from which the set of biopolymers used in fabricating the array was received (Column 3, line 55-Column 4, line 10).

Regarding Claim 16, Cattell discloses the method further comprising applying a same communication address to each of the substrates or housings wherein the address identifies a remote location from which the identity map will be communicated in response to a received communication of the associated map identifier (Column 10, line 65-Column 50 and Claim 14 (d) shipping each of the fabricated arrays....**to one** or more of the remote locations, lines 36-63).

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### **Response to Arguments**

6. Applicant reiterated the arguments discussed above regarding the '387 application.

The arguments have been considered but are not found persuasive as discussed above.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4-16 and 47-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen et al (U.S. Patent No. 5,968,728, issued 19 October 1999) in view of Ellison et al (U.S. Patent Application Publication No. 2002/0086319A1, filed 13 November 2000).

Regarding Claim 1 and 47, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but

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they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 2 and 48, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array related data is saved in association with an identifier i.e. id code; wherein the identifier is associated with the array by applying the identifier to the substrate or housing carrying the substrate (Column 4, line 61-Column 5, line 7 and Fig. 10-12) (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing

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moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 4 and 49, Perttunen et al teach the method wherein the chemical moieties are biopolymers (Column 4, lines 13-26).

Regarding Claim 5 and 50, Perttunen et al teach the method wherein the biopolymers are DNA (Column 4, lines 13-26).

Regarding Claim 6 and 51, Perttunen et al teach the method wherein the memory is a database and the method additionally comprises retrieving the array related data from the memory and communicating the retrieved data to a remote location in response to receiving a communication of the identifier from the remote location (Column 8, lines 38-54).

Regarding Claim 7 and 52, Perttunen et al teach the method wherein the memory comprises a portable storage medium e.g. bar code, the method further comprising shipping the portable medium to a remote location to the end user (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, #132 & 136 and Fig. 12, # 146).

Regarding Claim 8 and 53, Perttunen et al teach the method wherein the portable storage medium is shipped to the same remote location as the array i.e. user (Column 8, lines 35-42).

Regarding Claim 9 and 54, Perttunen et al teach the method wherein the substrate has applied thereto array related data e.g. identification code (Column 8, lines 1-19) but they do not teach the identification code comprises a communication address. However, Ellison et al teach the similar method of generating an array wherein the array has applied thereto

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identification code including a communication address from with the identity map will be communicated i.e. customer (§ 8) wherein the address on the substrate identifies customer and/or billing information. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include the communication address as taught by Ellison et al in the identification code on the substrate of Perttunen et al to thereby identify customer via the address as taught by Ellison et al (§ 8).

Regarding Claim 10, Perttunen et al teach a method of generating, at a central fabrication station, an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array related data is saved in association with an identifier i.e. id code; applying the identifier to the corresponding substrate or corresponding housing (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the



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end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Regarding Claim 11, Perttunen et al teach the method wherein the chemical moieties are biopolymers (Column 4, lines 13-26).

Regarding Claim 12, Perttunen et al teach the method wherein the biopolymers are DNA (Column 4, lines 13-26).

Regarding Claim 13, Perttunen et al teach the method wherein the memory is a database the method additionally comprising retrieving the array related data for arrays from the memory and communicating the data to a remote locations in response to receiving a communication of associated identifiers from the remote location Column 8, lines 38-54).

Regarding Claim 14, Perttunen et al teach the method wherein for each of the multiple array the corresponding identify map and associated identifier are saved on a memory comprising a portable computer readable storage medium wherein the array is used by an end user (Column 7, line 40-Column 8, line 62, Fig. 10, # 112 & 114, Fig. 11, # 132 & 136 and Fig. 12, # 146) but they do not specifically teach shipping the portable storage mediums to multiple remote locations. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.



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Regarding Claim 15, Perttunen et al teach the method wherein each of the portable storage mediums and the corresponding fabricated array are used by the at the same remote location i.e. end user from which the set of biopolymers used in fabricating the array was received (Column 7, line 40-Column 8, line 62).

Regarding Claim 16, Perttunen et al teach the method wherein each of the substrates comprise an identification code which identifies array related data e.g. identification code (Column 8, lines 1-19) but they do not teach the identification code comprises a communication address. However, Ellison et al teach the similar method of generating an array wherein the array has applied thereto identification code including a communication address from with the identity map will be communicated i.e. customer (§ 8) wherein the address on the substrate identifies customer and/or billing information. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to include the communication address as taught by Ellison et al in the identification code on the substrate of Perttunen et al to thereby identify customer proving the array samples via the address as taught by Ellison et al (§ 8) for the obvious benefits of maintaining correct correlations between the customer and the array.

### ***Response to Arguments***

9. Applicant argues that the information stored in the method of Perttunen differs from the newly claimed instructions and/or algorithms. The argument has been considered but is not found persuasive because, as cited above, Perttunen clearly teaches saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67). As further discussed above, the newly claimed data is non-functional descriptive material that does not limit the method.

Applicant further argues that Ellison does not teach use of machine readable instructions for use by a processor on how to read an array or process data. The argument has been considered but is not found persuasive because the claims are drawn to a method of

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making an array. Hence, the argument regarding use of the data is not commensurate in scope with the claim.

10. Claims 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen et al (U.S. Patent No. 5,968,728, issued 19 October 1999) in view of Ellison et al (U.S. Patent Application Publication No. 2002/0086319A1, filed 13 November 2000) as applied to Claims 1 and 2 above and further in view of Zelany et al (U.S. Patent No. 6,215,894, filed 26 February 1999).

Regarding Claims 45 and 46, Perttunen et al teach a method of generating an addressable array of chemical moieties on a substrate comprising: depositing the moieties onto different regions of the substrate so as to fabricate the array; before the array has been exposed to a sample, saving in a memory array related data said data comprising instructions for reading the array or instruction of processing the array (Column 3, lines 54-67) wherein the array and array related data is utilized by an end user (Column 8, lines 38-41 and Column 9, lines 63-Column 10, lines 2) which clearly suggests that the array is sent from the place of origin but they do not specifically teach shipping the fabricated array and forwarding the array related data to a remote location. However, shipping arrays to end users was well known in the art at the time the claimed invention was made as taught by Ellison et al. Ellison et al teach a similar method for generating an addressable array of chemical moieties comprising depositing moieties onto different regions of the substrate, saving in a memory array related data and shipping the array and forwarding the array related data to a remote location i.e. to shipping address contained in the machine readable information (§ 8). It would have been

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obvious to one of ordinary skill in the art at the time the claimed invention was made to apply the shipping of Ellison et al to the arrays of Perttunen et al and, based on the location of the end user, ship the arrays to the end user for the obvious benefits of shipping e.g. convenience and availability.

Perttunen et al teach the method wherein the array related data generates mappings of the array and directs operation of the scanning system (Column 3, lines 54-67) but they do not specifically teach that the data includes an indication as to whether a particular type of control probe is present on the array. However, control probes were well known in the art at the time the claimed invention was made as taught by Zelany et al who teach that the control probes are useful for calibrating and adjusting the scanner thereby facilitating scanning (Column 3, lines 19-25). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the data of Perttunen et al by including data as to whether a control probe is present on the array for the expected benefit of adjusting and calibrating the scanner as taught by Zelany et al (Column 3, lines 19-25).

### **Response to Arguments**

11. Applicant argues that Zelany et al do not fails to make up the deficiencies of Perttunen and Ellison and therefore, the combination does not teach the claimed invention. The argument has been considered but is not found persuasive for the reasons stated above regarding Perttunen and Ellison.

### ***Double Patenting***

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1, 2, 4-16 and 45-54 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,180,351. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a method of generating an addressable array and differ only in the patent claims recite the additional method step (a) of receiving from a remote station information on a layout of the array and associated identifier and (e) forwarding a second copy of the local identifier to the remote station. However, the open claim language "comprising" recited in the instant claims encompasses the additional method steps of the patent claims. Furthermore, the patent defines the identifier as containing machine readable identifier containing information regarding processing and/or reading the array (Column 5, lines 41-48 and Column 12, lines 18-35).

Therefore, the instant claims are obvious in view of the patent claims.

14. Claims 10, 13-16 and 44-54 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 21-24 of copending Application No. 09/775,387. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a method of generating addressable arrays of biopolymers and differ only in the arrangement of the claim

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limitations i.e. the limitations of instant claims 13-16 are recited in Claim 21 of the '387 application. Furthermore, the '387 specification defines their claimed identifier as machine readable instructions for reading and processing the array (e.g. missing features, misplaced feature, features of incorrect dimension, other physical characteristics) is stored such that the person reading data from the array will interpret the data correctly (§ 5, 11, 15, 41, 45).

As such, the instant and '387 claims encompass inventions which are not patentably distinct.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### **Response to Comments**

15. Applicant reiterates the arguments provided above regarding the '387 application and the '351 patent. The arguments have been considered but are not found persuasive for the reasons stated above regarding the rejections under 35 U.S.C. 102 and non-functional descriptive material.

#### **Prior Art**

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Zeleny et al U.S. Patent No. 6,215,894, filed 26 February 1999

Chappell U.S. Patent Application Publication No. 2002/0075490A1

Ebersole U.S. Patent No. 4,219,335.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### **Conclusion**

18. No claim is allowed.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (571) 272-0741. The examiner can normally be reached on 6:00 TO 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

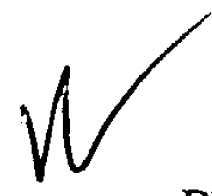
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your

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application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.



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Art Unit: 1634  
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